



UNITED STATES PATENT AND TRADEMARK OFFICE

Ph

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,548	08/13/2001	Donald James MacLeod	8032107.12/JAS	9804

7590 03/12/2004

James A. Sheridan
MOSER, PATTERSON & SHERIDAN, LLP
595 SHREWSBURY AVENUE
SUITE 100
SHREWSBURY, NJ 07702

EXAMINER

TAMAI, KARL I

ART UNIT	PAPER NUMBER
----------	--------------

2834

DATE MAILED: 03/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,548

Applicant(s)

MACLEOD, DONALD JAMES

Examiner

Tamai IE Karl

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Specification

1. The objection to the title is withdrawn.

Claim Objections

2. Claim 19 is objected to because of the following informalities: Claim 19 depends from a cancelled claim 7. In order to advance prosecution on the merits, the examiner will assume that claim 19 depends from claim 17. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 16, 17, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Tanaka et al. (Tanaka)(JP 62-092,741). Tanaka teaches a motor for a disc drive having fixed shaft 21, a spindle hub 7 with a flange 37 supporting the disc 53 that extends above the stator 11 mounted to the inside surface of the stator well. The spindle supported by bearings extending above and below the disc 53. The stator having windings cooperating with the rotor magnet 9 to rotate the spindle.

Art Unit: 2834

5. Claims 16, 17, and 20 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wada et al. (Wada)(JP 63-70822). Wada teaches a motor for a disc drive having fixed shaft 12, a spindle hub 14 with a flange supporting the disc 17 that extends above the stator 11 mounted to the inside surface of the stator well 13. The spindle supported by bearings extending above and below the disc 17. The stator having windings cooperating with the rotor magnet 14a to rotate the spindle.

6. Claims 16-20 are rejected under 35 U.S.C. 102(e) as being unpatentable over Lin(US 4,965,476) . Lin teaches a stator mounted in a well having bearing extending outside the well and supported a disc on the rotor by a flange 34. The span of the bearings on the fixed shaft 12 extending above and below the disc 40. Lin does not specifically teach a casing, but it is inherent that the flange 10 is secured to an upper housing enclosing the magnetic disc drive.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (Tanaka)(US 62-092,741) or Wada et al. (Wada)(JP 63-70822), in further view of Lin(US 4,965,476). Tanaka teaches every aspect of the invention except the use of a multipolar annular magnet on the rotor. Lin teaches a multipolar annular

Art Unit: 2834

magnet 46 to rotate a disc drive (col. 5, line 44). It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of Tanaka or Wada with the permanent magnet of Lin to allow the motor to operate as a brushless DC motor to control the rotation of the rotor discs when storing magnetic memory.

Double Patenting

9. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

10. Claim 16 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1, of U.S. Patent No. 6316853.

Claim 16 recites all the limitations of claim 1. Claim 1 of US 6316853 includes all of the limitations of claim 16 except the magnet is not on the external surface of the bore or the flange in the region of the stator coils. It would have been obvious to a person of ordinary skill in the art at the time of the invention to construct the motor of '853 with magnet on the lower portion to allow the rotor to be inside the hub to provide a compact motor and with the flange in the region of the stator coils.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl I.E. Tamai whose telephone number is (571) 272 - 2036.

The examiner can be normally contacted on Monday through Friday from 8:00 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Darren Schuberg, can be reached at (571) 272 - 2044. The facsimile number for the Group is (703) 872 - 9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karl I Tamai
PRIMARY PATENT EXAMINER
March 7, 2004



**KARL TAMAI
PRIMARY EXAMINER**